IN THE CLAIMS:

Please cancel claims 28-36 and add new claims 37-51 as follows:

37. A signal transmission and receiving apparatus comprising a transmission apparatus and a receiving apparatus,

said transmission apparatus comprising:

- a mapper operable to map a data stream including audio and video information to an n-level digital mapped signal;

- a digital filter having a VSB characteristic, which covers a frequency band including a carrier frequency, and a roll-off characteristic, said digital filter being operable to filter the n-level digital mapped signal to produce a VSB modulated signal; and

- a transmitter operable to transmit the VSB modulated signal;

said receiving apparatus comprising:

- a demodulator operable to demodulate the VSB modulated signal to the data stream including the audio and video information.

38. The signal transmission and receiving apparatus according to claim 37, wherein the digital filter is an FIR filter.

39. A signal transmission apparatus comprising:

- a mapper operable to map a data stream including audio and video information to an n-level digital mapped signal;

- a digital filter having a VSB characteristic, which covers a frequency band including a carrier frequency, and a roll-off characteristic, said digital filter being operable to filter the n-level digital mapped signal to produce a VSB modulated signal; and

- a transmitter operable to transmit the VSB modulated signal.

40. The signal transmission apparatus according to claim 39, wherein the digital filter is an FIR filter.

41. A signal receiving apparatus comprising:

a receiver operable to receive a VSB modulated signal resulting from: (a) a mapper mapping a data stream including audio and video information to an n-level digital mapped signal, and (b) a digital filter filtering the n-level digital mapped signal, wherein the digital filter has a VSB characteristic, which covers a frequency band including a carrier frequency, and a roll-off characteristic; and

a demodulator operable to demodulate the received signal to reproduce the data stream including the audio and video information.

42. The signal receiving apparatus according to claim 41, wherein the digital filter is an FIR filter.

43. A signal receiving apparatus according to claim 41, further comprising a video decoder operable to decode the data stream to a video signal.

44. A signal receiving apparatus according to claim 43, further comprising an output part operable to output the video signal.

45. A signal receiving apparatus according to claim 43, further comprising a display operable to display the video signal.

46. A signal transmission and receiving method comprising a transmission method and a receiving method,

said transmission method comprising:

- mapping a data stream including audio and video information to an n-level digital mapped signal;

- filtering the n-level digital mapped signal with a digital filter having a VSB characteristic, which covers a frequency band including a carrier frequency, and a roll-off characteristic, to produce a VSB modulated signal; and

- transmitting the VSB modulated signal;

said receiving method comprising:

- demodulating the VSB modulated signal to the data steam including the audio and video information.

47. The signal transmission and receiving method according to claim 46, wherein the digital filter is an FIR filter.

48. A signal transmission method comprising:

- mapping a data stream including audio and video information to an n-level digital mapped signal;

- filtering the n-level digital mapped signal with a digital filter having a VSB characteristic, which covers a frequency band including a carrier frequency, and a roll-off characteristic, to produce a VSB modulated signal; and

- transmitting the VSB modulated signal.

49. The signal transmission method according to claim 48, wherein the digital filter is an FIR filter.

50. A signal receiving method comprising:

receiving a VSB modulated signal resulting from: (a) a mapper mapping a data stream including audio and video information to an n-level digital mapped signal, and (b) a digital filter

filtering the n-level digital mapped signal, wherein the digital filter has a VSB characteristic, which covers a frequency band including a carrier frequency, and a roll-off characteristic; and

demodulating the received signal to reproduce the data stream including the audio and video information.

51. The signal receiving method according to claim 50, wherein the digital filter is an FIR filter.